Listing Of Claims

Claims 1-28 (Canceled)

29. (original) A method for fabricating a semiconductor component comprising:

providing a semiconductor die comprising a die contact;

forming a polymer layer on the die;

forming a redistribution conductor on the polymer layer in electrical communication with the die contact;

forming a bonding pad on the conductor;

forming a first metal layer on the bonding pad; and

forming a non-oxidizing metal layer on the first metal layer.

30. (original) The method of claim 29 wherein the non-oxidizing metal layer comprises Au, Pt or Pd.

31. (original) The method of claim 29 wherein the first metal layer comprises a metal selected from the group consisting of Ni V, Cr, CrCu and Cu.

32. (original) The method of claim 29 wherein the non-oxidizing metal layer covers the bonding pad and the conductor.

33. (original) The method of claim 29 further comprising forming a stud bump on the bonding pad.

34. (original) The method of claim 29 further comprising wire bonding a wire to the bonding pad.

35. (original) The method of claim 29 further comprising forming a second polymer layer on the die and

the conductor having an opening aligned with the bonding pad.

36. (original) A method for fabricating a semiconductor component comprising:

providing a die comprising a circuit side and a plurality of die contacts on the circuit side having a first pattern;

forming a polymer layer on the circuit side;

forming a plurality of conductors on the polymer layer in electrical communication with the die contacts;

forming a plurality of bonding pads on the polymer layer in electrical communication with the conductors and having a second pattern;

forming a barrier/adhesion layer on the conductors and the bonding pads; and

forming a non-oxidizing layer on the barrier/adhesion layer.

37. (original) The method of claim 36 wherein the forming the conductors step and the forming the bonding pads step comprise electrolessly depositing a first metal.

38. (original) The method of claim 36 wherein the forming the barrier/adhesion layer step comprises electrolessly depositing a second metal.

39. (original) The method of claim 36 wherein the forming the non-oxidizing layer step comprises electrolessly depositing a third metal.

40. (original) The method of claim 36 wherein the polymer layer comprises a material selected from the group consisting of polyimide, PBO and BCB.

41. (original) The method of claim 36 wherein the barrier/adhesion layer comprises a material selected from the group consisting of a metal selected from the group consisting of V, Cr, CrCu and Cu.

42. (original) A method for fabricating a semiconductor component comprising:

providing a substrate comprising a semiconductor die comprising a plurality of die contacts;

forming a plurality of metal bumps on the die contacts;

forming a polymer layer on the die and planarizing the polymer layer and the metal bumps to a same surface;

forming a plurality of conductors on the polymer layer in electrical communication with the metal bumps, the conductors comprising bonding pads having a different pattern than the die contacts;

forming a barrier/adhesion layer on the conductors and the bonding pads;

forming a non-oxidizing layer on the barrier/adhesion layer; and

singulating the die from the substrate.

43. (original) The method of claim 42 further comprising forming a plurality of stud bumps on the bonding pads.

44. (original) The method of claim 42 further comprising forming a plurality of wire bonds on the bonding pads.

45. (original) The method of claim 42 further comprising forming a second polymer layer on the die having openings aligned with the bonding pads.

46. (original) The method of claim 42 wherein the substrate comprises a semiconductor wafer.

47. The method of claim 42 wherein the forming the barrier/adhesion layer step comprises electrolessly depositing Ni.

48. (original) The method of claim 42 wherein the forming the non-oxidizing layer step comprises electrolessly depositing Au.

49. (original) A method for fabricating a semiconductor component comprising:

providing a semiconductor die including a circuit side and a plurality of die contacts on the circuit having a first pattern;

forming a polymer layer on the circuit side;

forming a plurality of conductors on the polymer layer in electrical communication with the die contacts; and

forming a plurality of bonding pads on the conductors having a second pattern;

forming a barrier/adhesion layer on the conductors and the bonding pads; and

forming a non-oxidizing layer on the barrier/adhesion layer.

50. (original) The method of claim 49 further comprising adjusting electrical characteristics of the conductors by controlling a thickness of the barrier/adhesion layer.

51. (original) The method of claim 49 further comprising forming a second polymer layer on the circuit side encapsulating the conductors and having a plurality of openings aligned with the bonding pads.

52. (original) The method of claim 49 wherein the non-oxidizing layer completely seals the conductors and the bonding pads.

53. (original) The method of claim 49 further comprising forming a plurality of stud bumps on the bonding pads.

54. (original) The method of claim 53 further comprising wire bonding to the stud bumps.

55. (original) The method of claim 49 further comprising wire bonding to the bonding pads.

Claims 56-68 (Canceled)